**Remarks**

A. Period For Reply

A shortened statutory period was set to expire three months from the Office Action of May 18, 2005. May 18, 2005 plus two months is Monday, July 18, 2005. May 18, 2005 plus three months is Thursday, August 18, 2005.

B. Status

The Office Action was final. This Amendment and Remarks is being filed on or before Monday, July 18, 2005.

C. Disposition Of Claims

Claims 4-7 are pending.

D. Application Papers

As to drawings, there are no drawings in this case.

E. Priority under 35 U.S.C. §§ 119 and 120

Acknowledgment of the claim for foreign priority and of the receipt of the priority document were made in the Office Action dated July 1, 2004. This is appreciated.

As to domestic priority, this case does not claim domestic priority.

F. Attachments

Applicants filed one PTO-1449 form in this application, with the filing of this case on October 13, 2003. The PTO-1449 form has been initialed and signed by the Patent Office and returned with the Office Action of July 1, 2004. This is very much appreciated.

G. Basis for amendments (if any) to the claims and basis for new claims (if any)

No new claims have been added.

H. The Office Action

H.1. Claim rejections - 35 U.S.C. § 112

On page 2 of the Office Action, claim 7 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is respectfully traversed.

The history of the rejection of claim 7 is as follows:

- In the Office Action of December 14, 2004:
  1. claim 7 was allowed; and
  2. claim 7 was rejected on the basis of the term "gently."
- In the Amendment and Remarks of March 9, 2005:
  1. it was explained that claim 7 sets out a "test" by which the physical strength of a catalyst can be measured; and
  2. the term "gently" was deleted from claim 7.
- In the Office Action of May 18, 2005:
  1. claim 7 was rejected on the basis of the term "gently" even though this claim no longer included this term; and
  2. the Office Action states that claim 7 should have process steps for the production of acrylic acid even though claim 7 is dependent upon claim 6 which is dependent upon claim 4, which claim does have a process step for the production of acrylic acid.

Here, applicant points out that "gently" has been removed from claim 7 since the Amendment and Remarks of March 9, 2005. Further, the attention of the Patent Office

is directed to claim 4, upon which claim 7 depends through claim 6. Claim 4 has a process step for the production of acrylic acid.

In light of the above, it is respectfully submitted that claim 7 is in compliance with 35 U.S.C. 112, second paragraph.

H.2. Claim rejections - 35 U.S.C. § 103

On pages 2-4 of the Office Action, claims 4-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,892,856 to Kawajiri et al. This rejection is respectfully traversed on the grounds set out in applicant's discussion in section I. of this paper below.

I. Applicant's discussion

I.1. Objective evidence

Via this Amendment and Remarks, applicant hopes to address the following paragraph of the Office Action:

> Applicant argues that the water disclosed by Kawajiri is distilled water, which is weakly acidic, and therefore, outside of the pH range required by the claims. However, the record is still absent of any objective evidence that the water disclosed by Kawajiri is not within the range claimed. In this regard, those of ordinary skill would expect that the water disclosed by Kawajiri to be within the claimed pH range. [emphasis added]

First, it is respectfully submitted that those or ordinary skill in the art would realize that the water disclosed by Kawajiri et al. (i.e., distilled water) would have a pH of less than 7.0. Hence there is no need to rely upon objective evidence. Those of ordinary skill in the art would require no objective evidence; such knowledge comes hand-in-hand with their skill.

Second, it is respectfully submitted that applicant's specification is objective evidence on its own. In

Comparative Example 3 of the present specification, it is disclosed that the pH of ion-exchanged water is 6.0. Just like a mechanical case, such was observable phenomena, presented factually (and uninfluenced by emotions or personal prejudices).

However, third, even if such knowledge is not within the knowledge of one of ordinary skill in the art, and even if applicant's own specification is not objective evidence, applicant hereby submits third party objective evidence. This third party objective evidence, which is being transmitted with this Amendment and Remarks, is identified below:

- Document 1: Chemical universal dictionary (three pages, including partial translation); and
- Document 2: Hand book of film-using technology (eight pages, including partial translation).

Document 1 provides that "The distilled water which is usually used contains carbon dioxide and indicates a pH of about 5.7."

Document 2 provides that "It is known that pure water easily absorbs (dissolves) a gas as well to thus rapidly vary in purity. There are data showing that its pH varies with the passage of time due to $CO_2$ in the air. Specifically, when being left in the air without being stirred, pure water reaches equilibrium in about 7 minutes and 30 seconds." As shown in Document 2, page 183, the pH value of pure water is initially about 7.0 (6.960), but decreases in 7.5 minutes to a pH value of 5.947.

Thus, it is respectfully submitted that the Patent Office's concern as to objective evidence has been addressed. Objective evidence shows that the Kawajiri et al. reference cannot meet the claimed pH range. Allowance

of claims 4-7 is respectfully requested.

I.2. Kawajiri et al. does not suggest a pH of 7.0

What does a pH of 7.0 mean? Such means a neutral pH, nothing more, nothing less.

If a liquid has a pH of 7.0, is such a liquid water? No, if a liquid has a pH of 7.0, it does not lead to the answer that the liquid is water.

Water must have a pH of 7.0, isn't that correct? No, simply because a liquid is water, it does not follow that the pH of such a liquid is 7.0.

Theory, however, provides that the pH of pure water is 7.0, isn't this correct? Yes, from a theoretical perspective, and as almost verified by page 183 of Document 2, the pH of pure water is 7.0. However, once exposed to air, the pH of such pure water rapidly goes acidic. In a usual industrial process, it is impossible to keep water away from air without a highly specific technique. It is also impossible to use water within a highly short time before such water absorbs carbon dioxide from the air.

Kawajiri et al. discloses "spraying a binder such as water" in column 3, line 53. What is the pH of this "water?" Kawajiri et al. does not let us know. Does this disclosure suggest a pH of 7.0? No. Why? Please see the above.

Kawajiri et al. discloses distilled water in Example 1. Does this disclosure suggest a pH of 7.0? No. Why? Please see the above. In fact, as Document 1 provides, distilled water will likely have a pH of about 5.7.

I.3. Dependent claim 5: how basic is a liquid having a pH of 7.5 relative to a liquid having a pH of 7.0?

Dependent claim 5 calls out a pH of 7.5.

A liquid having a pH of 8.0 is ten times more basic than a liquid having a pH of 7.0.

A liquid having a pH of 7.5 is five times more basic than a liquid having a pH of 7.0.

Kawajiri et al. discloses "spraying a binder such as water" in column 3, line 53. What is the pH of this "water?" Kawajiri et al. does not let us know. Does this disclosure suggest a pH of 7.5? No. Why? Please see section I.2. of this paper.

Kawajiri et al. discloses distilled water in Example 1. Does this disclosure suggest a pH of 7.5? No. Why? Please see section I.2. of this paper. In fact, as Document 1 provides, distilled water will likely have a pH of about 5.7.

J. Summary

It is respectfully submitted that the present specification is objective evidence and that the inventors of the present specification are at least those of ordinary skill in the art.

The present specification is consistent with third party objective evidence. Please compare the present specification with Documents 1 and 2.

Applicant respectfully submits that the present application is now in condition for allowance. The Examiner is respectfully invited to make contact with the undersigned

by telephone if such would advance prosecution of this case.

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